

HCG-400M Power Supply

User's Manual

USER'S MANUAL
HCG M SERIES
HCG-400M POWER SUPPLY

ELITE POWER MEETS UNRIVALED PERFORMANCE

Antec's HCG M power supplies are the perfect combination of power and efficiency. The HCG M features special heavy-duty High Current connectors and cabling that supply extreme levels of power, and superb efficiency thanks to 80 PLUS® Bronze certification and Active PFC. Highest-quality connectors, Japanese-brand capacitors, and a quiet 135 mm double ball bearing fan complete the package. The HCG-400M features High Current Cable Management and 10-pin modular connectors. If loads of power, High Current engineering and extreme efficiency are what you're after, the HCG M is the PSU for you.

STANDARDS AND FEATURES

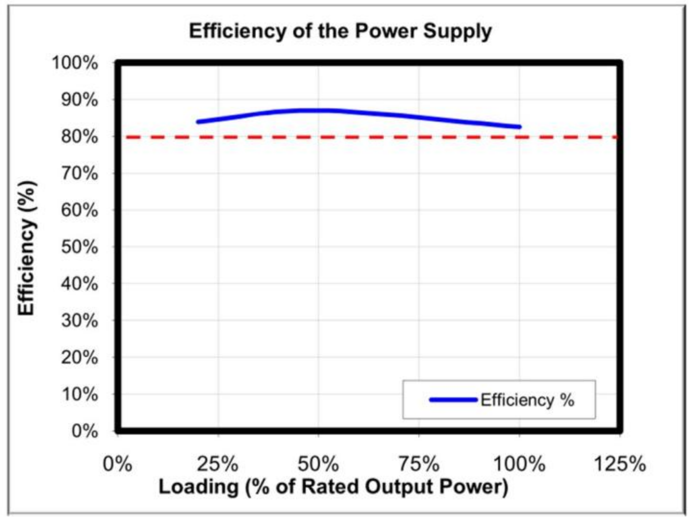
The connectors and power specifications of the HCG-400M PSU are all compatible with ATX12V v2.32 and EPS12V v2.92 specifications. The HCG-400M features Universal Input, which automatically senses when you connect the power supply to any AC power source between 100 - 240V without setting a voltage switch. This power supply also features Active Power Factor Correction (PFC), which improves the power factor value of the power supply by altering the input current wave shape, helping to power transmission across the grid.

SYSTEM PROTECTION

A variety of industrial-grade safety circuitry will help protect your computer: Over Current Protection (OCP), Over Voltage Protection (OVP), Under Voltage Protection (UVP), Short Circuit Protection (SCP), Over Power Protection (OPP) and Surge & Inrush Protection (SIP). Sometimes the PSU will "latch" into a protected state. You will need to power off the PSU and clear the fault before it will function again. There are no user-replaceable fuses in your HCG-400M.

80 PLUS® Certification

80 PLUS® certification is the most widely recognized independent standard in power supply efficiency. An 80 PLUS® certified power supply uses less energy and generates less heat to stay cooler, run quieter and last longer. The HCG-400M has been 80 PLUS® Bronze certified to be at least 82% efficient at a wide range of operating loads; this will lower your operating costs and help protect the environment.



Power Output

To see the output capacity and regulation for each different voltage, see table 1.

Table 1

Output Voltage	Load Max.	Regulation	Ripple & Noise
+3.3V	20A	±5%	< 50 mV
+5V	20A	±5%	< 50 mV
+12V	30A	±5%	< 120 mV
-12V	0.8A	±5%	< 120 mV
+5VSB	2.5A	±5%	< 50 mV

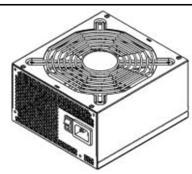
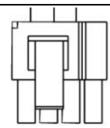
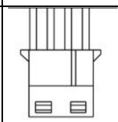
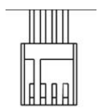
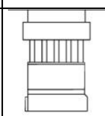
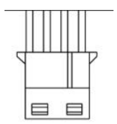
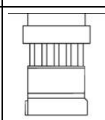
Intelligent Hybrid Cable Management

The HCG-400M uses Intelligent Hybrid Cable Management. Cables that are important or mandatory are permanently connected to the PSU for the highest quality power delivery. There are modular jacks on the back of the PSU to add additional cables as needed. Using only the cables you need will reduce clutter and improve airflow inside your case. For the list of connected and optional cables, see table 2.

Modular Cable Jacks

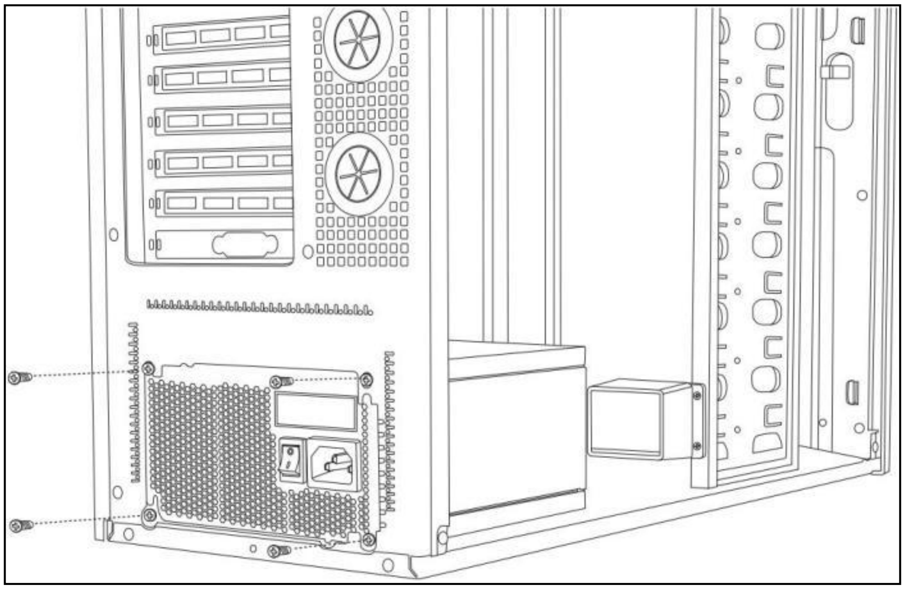
There are two 5-pin black jacks and four 10-pin red jacks on the back of your HCG-400M PSU. These jacks are for the optional cables that come with your power supply. A modular 10-pin connector system allows you plug 5-pin connectors into the 10-pin jacks if you run out of 5-pin jacks.

TABLE 2

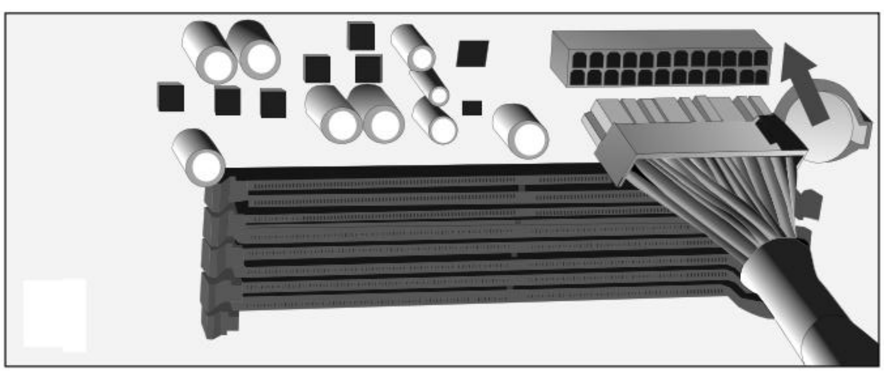
Cable Quantity	Power Connectors	Description	
N/A		Fixed cables	24 (20+4)-pin main connector
			1x 8 (4+4)-pin ATX12V/EPS12V
1	 x 1	8 (6+2)-pin PCI-E	
1	 x 3  x 1	Molex + FDD	
1	 x 1  x 1	SATA + Molex	
1	 x 3	SATA	

INSTALLATION:

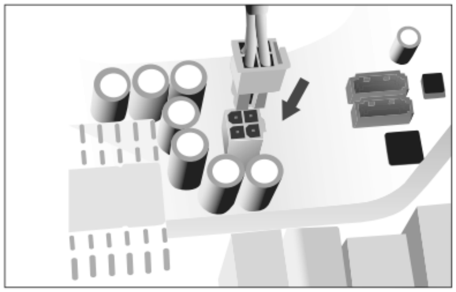
1. Install the PSU into either the top or bottom of your case with the four screws provided. Refer to your case manual if you are unsure where the power supply should be installed.

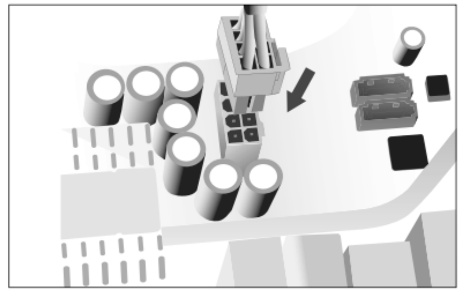


2. Connect the 24-pin main power connector to your motherboard. If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin connector.
   Note: The detachable 4-pin section cannot be used in place of a 4-pin +12V connector.

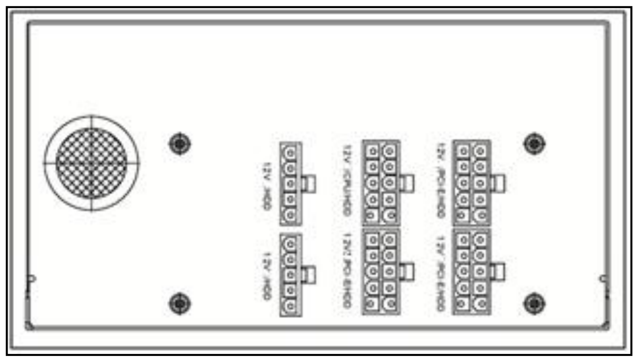


3. Connect the 8-pin or 4+4-pin connector for the CPU. If your motherboard has an 8-pin socket with a cover on some of the openings, we recommend that you remove the cover and use the 8-pin connector.
   Note: Please also refer to your motherboard user's manual for any special instructions.

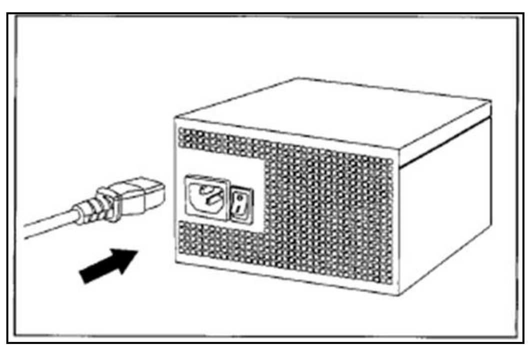




4. Connect extra cables from the cable pack to the sockets on the power supply only if needed. If you are going to plug the PCI-E cables into the PSU, they should go into the red sockets. If the red sockets are not being used for PCI-E, then they can be used for any other type of cable supplied in the pack that accompanies the PSU.



5. Connect the AC power cord to the power supply AC inlet. Be sure to use the heavy-duty cord supplied with your PSU.



6. PCI-E graphics cards use different amounts of power. For some, a single 6-pin connector is sufficient, making the hardwired connector the preferred choice. More powerful cards use multiple connectors, including the advanced 8-pin PCI-E connector. The 8-pin PCI-E connector on the PSU can be used as either a 6- or 8-pin connector.

7. Hard drives, optical drives (CD/DVD/BluRay™) and other accessories will use either the older 4-pin Molex connector or the newer 15-pin SATA connector. 4-pin Molex connectors have two black, one yellow and one red wire. The SATA connector has an additional orange power wire.

8. When you have all the connections secured, turn the switch on the PSU to the “|” position.

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